

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (CURRENTLY AMENDED) A liquid-jet head comprising:

a passage-forming substrate on which pressure generating chambers communicating with nozzle orifices are defined, and a piezoelectric element composed of a lower electrode, a piezoelectric layer and an upper electrode, which are provided on the passage-forming substrate while interposing a vibration plate therebetween,

wherein, the lower electrode is provided to extend from an area facing the pressure generating chamber to an area facing compartment walls which are present on both sides, in a width direction, of the pressure generating chamber,

a cross section of the piezoelectric layer, when cut along the width direction, has a trapezoidal shape,

both ends, in a width direction, of the piezoelectric layer at a pressure generating chamber side are positioned in a region facing the pressure generating chamber, and a relationship between a width x of a portion of the piezoelectric layer provided on a lower electrode, the portion of the piezoelectric layer being located directly facing the lower electrode and at the pressure generating chamber side, and a width y of the pressure generating chamber at the vibration plate side satisfies $0.75 \leq x/y \leq 1$.

2. (ORIGINAL) The liquid-jet head according to claim 1,
wherein the width x of the piezoelectric layer at the pressure generating chamber side and the width y of the pressure generating chamber at the vibration plate side are equal.
3. (PREVIOUSLY PRESENTED) The liquid-jet head according to claim 1,
wherein the pressure generating chamber has a space portion, the space being provided at a periphery of an opening of the pressure generating chamber at the vibration plate side, the width y' of the pressure generating chamber at the vibration plate side is defined by outer edges at both sides of the space portion such that the relationship $0.75 \leq x/y' \leq 1$ is satisfied.
4. (ORIGINAL) The liquid-jet head according to claim 1,
wherein the pressure generating chambers are formed in a single crystal silicon substrate by anisotropic etching, and each layer of the piezoelectric element is formed by deposition and a lithography method.
5. (ORIGINAL) A liquid-jet apparatus comprising:
the liquid-jet head according to any one of claims 1 to 4.
6. (PREVIOUSLY PRESENTED) The liquid-jet head according to claim 1, wherein the lower electrode extends beyond an area facing the pressure generating chamber to an area facing

AMENDMENT UNDER 37 C.F.R. §1.111
Application Number: 10/632,113

Our Ref: Q76707
Art Unit: 2853

compartment walls which are present on both sides, in a width direction, of the pressure
generating chamber.